

Title (en)

A GREEN PROCESS FOR MODIFYING WOOD

Title (de)

GRÜNVERFAHREN ZUR MODIFIZIERUNG VON HOLZ

Title (fr)

TRAITEMENT ÉCOLOGIQUE DE MODIFICATION DU BOIS

Publication

EP 4069483 A1 20221012 (EN)

Application

EP 20825405 A 20201204

Priority

- US 201962944858 P 20191206
- US 202063068211 P 20200820
- US 2020063402 W 20201204

Abstract (en)

[origin: US2021170623A1] This invention relates to a process for modifying wood. The process comprises treating the wood with an impregnating solution comprising an alkali metal (or alkaline earth metal) silicate, under conditions sufficient to impregnate the wood with one or more of the components of the impregnating solution. The process can comprise an optional second impregnation with a second impregnating solution. The process also comprises adding gaseous carbon dioxide to the treated wood, in the absence or presence of water, under pressure ranging from about 2 to about 12 bars, thereby lowering the pH of the treated wood to about 11 or below, to stabilize and/or fix the components of the impregnating solution in the wood. The process is green, non-toxic, and the resulting modified wood or wood product can be used across all primary construction and infrastructure applications.

IPC 8 full level

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